RABOVIK, Ya.I.; ORESHKINA, O.M.; GORBACHEVA, Ye.G.; KUZNETSOVA, L.A., red.

[Laboratory manual of qualitative analysis for correspondence-course students of the faculties of agronomy and zootechny] Rukovodstvo k prakticheskim zaniatiiam po kachestvennomu analizu dlia studentov-zaochnikov agronomicheskogo i zootekhnicheskogo fakul'tetov. Moskva, 1963. 170 p. (MIRA 17:8)

GORBACHEVA, YE. P.

21

SOV/6098

PHASE I BOOK EXPLOITATION

Assonov, V. A., and L. A. Paporotskiy, Resp. Eds.

Novoye v sredstvakh i sposobakh vzryvaniya (New Developments in Blasting Means and Methods). Moscow, Gosgortekhizdat, 1962. 124 p. (Series: Vzryvnoye delo; Sbornik no. 48/5) Errata slip inserted. 3000 copies printed.

Sponsoring Agency: Nauchno-tekhnicheskoye gornoye obshchestvo.

Ed. of Publishing House: A. Ya. Koston'yan; Tech. Eds.: L. I. Minsker and G. M. Il'inskaya.

PURPOSE: The book is intended for mining engineers, workers in scientific research and planning organizations, and also for teachers and students of mining and technical schools.

COVERAGE: This collection of articles describes new blasting means and methods, means of protecting electric detonators from stray currents, and improved methods of short-delay detonation.

Card 1/6

GORBACHEVA, Ye.P.

Installation of an electric blasting network in shattering oversized rocks. Vzryv. delo no.48/5:98-101 '62. (MIRA 15:9)

1. Proizvodstvenno-eksperimental'noye upravleniye tresta Soyuzvzryvprom.
(Blasting) (Electric networks)

GORBACHEVA, Z.A.

Species of flies in the city of Tashkent and the life pattern of several of them. Izv.AN Uz.SSR 3:73-79 '56.(MIRA 12:6)
(Tashkent--Flies)

GORBACHEVA, Z.A.

GORBACHEVA, Z.A.

Phenology and number of generations of certain synanthropic flies in Tashkent. Med.paraz. i paraz.bol.supplement to no.1:75-76 '57. (MIRA 11:1)

1. Iz kafedry obshchey biologii Tashkentskogo meditsinskogo instituta imeni V.M.Molotova.
(TASHKENT--FLIES)

GORBACHEVA, Z. A., Cand Biol Sci -- (diss) "Materials in the introductory study of synanthropic flies in the city of Tashkent." Tashkent, Central Asiatic State Univ Press, 1960. 18 pp; (Central Asiatic State Univ im V. I. Lenin); 200 copies;price not given; (KL, 18-60, 149)

GORBACHEVA, Z.A.

Biology of Musca domestica vicina Macq. (housefly) in Tashkent. Sbor.nauch.trud.TashGMI 22:454-463 '62. (MIRA 18:10)

1. Kafedra obshchey biologii Tashkentskogo gosudarstvennogo meditsinskogo instituta (zav. kafedroy - prof. M.S.Sofiyev).

USSR/Cultivated Plants. Commercial. Oil-Bearing. Sugar-Bearing. M-5

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29870

Author : Gorbacheva, Z.I.

Inst : The Agricultural Institute of the Academy of Sciences, Uzbek SSR.

Title : Physiologico-Biochemical Changes in Cotton Leaves with Artificial Defoliation.

Orig Pub : V sb.: vopr. fiziol. khlopchatnika i trav. vyp. 1, Tashkent, AN UzSSR, 1957, 95-106

Abstract : The physiologico-biochemical changes in the leaves of the cotton plant were studied when they had been treated with various chemical preparations. The content of phosphates, pigments and the concentration of cellular fluid in the leaves were determined. Aside from this, study was made of the effect of the removal of the leaf lamina on the

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Abs Jour : Ref Zhur - Biol., No 7, 1958, 29870

speed of the dropping off of the petioles, and various periods were tried out for pollinating cotton with calcium cyanamide. The tests were made at the experimental cotton base of the Agricultural Institute of the Academy of Sciences of the Uzbek SSR. The cotton variety 108-F and the house plant Coleus (in the experiment with the leaf lamina) were the objects under investigation. The following preparates were tried out: dusting with calcium cyanamide (40-50 kg per ha.) and spraying with the same (0.5, 2 and 5% solutions), spraying with endothal, thiocarbamide and magnesium chlorate solutions in concentrations of 0.4-0.8%. Spraying was done in the period from the end of August to October, and dusting from the middle of June to the middle of October. It was established that the removal of the leaf lamina stimulated the formation of a separating layer. The effectiveness of calcium cyanamide was reduced when applied in the later periods.

Card 2/3

GORBACHEVA, Z.

[Free China] Svobodnyi Kitai. Moskva, Detgiz, 1952. 294 p.
(China--Description and travel) (MLRA 7:7)

GORBACHEVA, Z.I.

First information obtained by the Chinese people about Russia.
Iz ist.nauki i tekh.v stran.Vost. no.2:80-84 '61. (MIRA 14:9)
(China--Relations (General) with Russia)
(Russia--Relations (General) with China)

GORBACHEVA, Z.I.

Chinese medical works in the collection of the Leningrad Branch of the Institute of the Peoples of Asia of the Academy of Sciences of the U.S.S.R. Strany i nar. Vost. no.2:243-250 '61.
(MIRA 15:3)

(CHINA--MEDICINE)

KOZLOV, Petr Kuz'mich. (1863-1935); Prin. uchastiye:GORBACHEVA,Z.I.; GUMILEV, L.N., red.; KOZLOV, V.P., red.; KOZLOVA-PUSHKAREVA, Ye.V., red.; MURZAYEV, E.M., red.; OVCHINNIKOVA, T.N., red.; SINITSYN, V.M., red.; YUNATOV, A.A., red.; SPRIGINA, L.I., red.izd-va; VOLKOVA, V.V., tekhn. red.

[A Russian traveller in Central Asia] Russkii puteshestvennik v TSentral'noi Azii; izbrannye trudy (k stoletiiu so dnia rozhdeniia, 1863-1963). Moskva, Izd-vo AN SSSR, 1963. 522 p. (MIRA 16:10)

(Kozlov, Petr Kuz'mich, 1863-1935)
(Asia, Central--Discovery and exploration)

GORBACHEVA, Z.I.; PETROV, N.A.

Necessary reference book on China. Mat. Vost. kom. Geog. ob-va SSSR no.1:66-69 '62. (MIRA 16:9)

15 (6) SOV/101-59-1-2/10

AUTHORS: Diment, P. M., Viktorenkov, V. I., Gorbachevich, I. D., Petrosyants, G. V., Grin'ko, A. R.

TITLE: A Rotary Kiln with Cyclone Heat Exchangers (Vrashchayushchayasya pech' s tsiklonnymi teploobmennikami)
From the Work Experience of the Spasskiy Cement Plant
(Iz opyta raboty Spasskiy tsementnogo zavoda)

PERIODICAL: Tsement, 1959, Nr 1, pp 7 - 12 (USSR)

ABSTRACT: The authors state that the heat of gases escaping from a rotary kiln working on a dry process is for the preparatory heating of the raw material mixture. Part of the process is carried out in the conveying calcinator, i.e. in the cyclone heat exchangers. The latter are assembled at the rear of the "Lepol" type kilns. In such kilns, prior to the calcination of clinker, the plastic raw material containing about 12% water, ought to be granulated. When using cyclone heat exchangers, the non-plastic raw materials, practically devoid of water, may also be used for calcination. The workers of Giprotsement (State Planning Institute for Cement

Card 1/2

A Rotary Kiln with Cyclone Heat Exchangers
From the Work Experience of the Spassk Cement Plant

Industry Enterprises) and workers of the Spasskiy tsementnyy zavod (Spasskiy Cement Plant) have designed a rotary kiln provided with cyclone heat exchangers. The output of this kiln will be 14 tons per hour. An installation of cyclones working in parallel is shown in a diagram (Fig. 1). The authors state that a 3 x 60 m rotary kiln, with one cyclone line, may produce 12 - 13 tons per hour. The specific heat expenditure is about 1,000 kcal/kg of clinker. The process of calcination itself is uniform, when consistency in the feeding and quality of the raw material mixture is maintained. Stop pages in the feeding of the raw mixture layer and pronounced differences in the constitution of mixture interfere seriously with the smoothness of the process, causing a drop in efficiency. The positive results obtained with the application of cyclone heat exchangers prove the usefulness of this device. The cyclones are recommended for application in the remaining kilns of the plant in question, and as well in other plants working on the dry process.

Card 2/2 There are 2 diagrams, 1 photograph and 3 tables.

GORBACHEVICH, Kirill Sergeyevich; KHABLO, Yevgeniy Petrovich; VISHNYA, L.P., red.; ONOSHKO, N.G., tekhn. red.

[Why do they have such names? On the origin of the oldest place names in Leningrad]Pochemu tak nazvany? O proiskhozhdenii starinnykh nazvanii v Leningrade. Leningrad, Lenizdat, 1962. 197 p. (MIRA 16:1)

(Leningrad—Names, Geographical)

GORBACHEVICH, Kirill Sergeyevich; FILIN, F.P., prof., otv. red.

[Russian geographical names] Russkie geograficheskie nazvaniia. Moskva, Nauka, 1965. 63 p. (MIRA 18:8)

1. Chlen-korrespondent AN SSSR (for Filin).

GORBACHEVSKAYA, A.S.; KASHURO, L.G.

Marble bones in very young children. Vest. rent. i rad. 40 no.6:62-63 N-D '65. (MIRA 19:1)

1. Kafedra rentgenologii Leningradskogo pediatricheskogo meditsinskogo instituta (zav. - prof. Ya.L. Shik).

87423

S/153/60/003/004/027/040/XX
B020/B054

26.1610

AUTHORS: Barmashenko, I. B., Gorbachevskaya, L. A.

TITLE: Hydrogen Overvoltage on Porous Iron- and Iron-nickel Cathodes in Electrolysis of a Sodium Chloride Solution

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 4, pp. 699 - 706

TEXT: The authors studied the process mentioned in the title at current densities of from 100 to 5000 a/m^2 and at temperatures of from 20 to 80°C. They measured the electrode potential by a direct method according to the usual compensation scheme with an "Etalon" ("Standard") type potentiometer and a normal Weston cell. The emf of the chain was measured in the experiments: the porous cathode investigated is a reference half-cell (oxygen-mercury electrode in 1 N NaOH solution). A NaCl solution saturated at room temperature (5.5 N or 320 g/l) was used as electrolyte. Before electrolysis, a small amount of solid salt was put into the space around the electrodes in the electrolyzer; the

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salt did not dissolve during the experiment. Fig.2 shows the curves for the dependence of hydrogen overvoltage (η_{H_2}) on the logarithm of current density (i) on porous annealed and not annealed iron- and iron-nickel electrodes at 20, 40, 60, and 80°C. Data for a smooth iron electrode are given for comparison. Fig.3 shows that the temperature coefficient of hydrogen overvoltage reaches maximum values in the temperature range from 20 to 40°C, and decreases with rising temperature. An introduction of nickel reduces η_{H_2}, as compared with the porous iron electrode, by 0.15 - 0.2 v, and by 0.4 v as compared with smooth iron electrodes (Table). In adaptation to conditions in industrial electrolysis, measurements were made in a vessel with flow-type electrolyte (Fig.4), in contrast to the vessel with immobile electrolyte as shown in Fig.1. Thus, it was possible to attain a constant temperature in the electrolyzer with a maximum of 40-45°C at the minimum current density investigated. Fig.5 shows the dependence of hydrogen overvoltage (η_{H_2}) on the logarithm of current density (i) in electrolysis with a

Hydrogen Overvoltage on Porous Iron- and Iron-nickel Cathodes in Electrolysis of a Sodium Chloride Solution

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flow-type electrolyte. The curve shows that, under these conditions, η_{H_2} on porous Fe-Ni electrodes increases with rising current density; the relation deviates from linearity at low and high current densities, as had been observed in experiments with an immobile electrolyte. The authors mention L. L. Kuz'min, L. V. Borisova, V. S. Poroykova, N. N. Voronin, D. S. Nadezhdin, V. S. Daniel'-Bek, M. A. Loshkarev, A. M. Ozerov, O. S. Ksenzhek, V. V. Stender, P. D. Lukovtsev, S. D. Levina, I. P. Fedot'yev, A. G. Pecherskaya, Zhivotinskiy, and Stroganov. There are 5 figures, 1 table, and 23 Soviet references.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut, kafedra tekhnologii elektrokhimicheskikh proizvodstv (Kiyev Polytechnic Institute, Department for the Technology of the Electrochemical Industry)

SUBMITTED: October 17, 1958

FILIPPOVICH, Z.S.; PETRIK, K.G., rukovoditel' rabot; AVERIYANOV, K.G., rukovoditel' rabot; Prinimali uchastiye: KACHANOVSKAYA, Z.I.; GANTMAN, Ya.I.; KHUSID, B.S.; GORBACHEVSKAYA, M.S.

Increasing the coefficient of utilization of fresh fruit and berries in the winemaking, juice and liqueur-and-vodka industries. Trudy BNIIPPT no.4:129-144 '61. (MIRA 17:10)

SOBOLEV, V.S.; GORBACHEVSKAYA, O.N.

Aegirite in tuffite from Tertiary deposits of the Carpathian peidmont. Min.sbor. no.5:159-166 '51. (MLRA 9:12)

1. Gosuniversitet imeni Ivana Franko i Institut geologii poleznykh iskopaemykh, Akademiya nauk USSR.
(Carpathian Mountain region--Aegirite)
(Carpathian Mountain region--Tuffite)

GORBACHEVSKAYA, O. N.

"Geologicopetrographical Investigation of the Liparites of the Velikiy Sholles Range in Transcarpathia." Cand Geol-Min Sci, L'vov State U, L'vov. 1954. (RZhGeol, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions(16).

GORBACHEVSKIY, A.-author of an article"A new Soviet appliance for bacteriological analysis of the air."
SO: Meditsinskiy Rabotnik, Vol XVII, No 21(1245), p.3 1954 March 12 oh

GORBACHEVSKIY, A. M.

Medical Instruments and Apparatus

Apparatus for blowing through fallopian tubes. Med. prom. no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

BALLYUZEK, F.V., doktor med. nauk; SKORIK, V.I., kand. med. nauk; GORBACHEVSKIY, A.M.; KVENITSKIY, G.R.

Technical equipment for regional perfusion of the extremities. Ortop. travm. i protez. 26 no.6:7-12 Je '65. (MIRA 18:8)

1. Iz khirurgicheskoy kliniki usovershenstvovaniya vrachey No.1 (nachal'nik - prof. A.P. Kolesov) Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova i Spetsial'nogo konstruktorskogo byuro ob"yedineniya "Krasnogvardeyets" (nachal'nik - I.Ya. Gurevich). Adres avtorov: Leningrad F-13 Fontanka, d.106, Khirurgicheskaya klinika usovershenstvovaniya vrachey No.1 Voyenno-meditsinskoy akademii imeni Kirova.

GORBACHEVSKIY, B.S., kand.ekonom.nauk, dotsent

400 years of Russian book printing. Vest.mashinostr. 44 no.3: 85 Mr '64. (MIRA 17:4)

GORBACHEVSKIY, F.P.

Determination of the effect of local high-frequency vibrations on the tonal state of the peripheral vessels of man [with summary in English]. Trudy LSGMI 44:208-230 '58 (MIRA 11:12)

1. Kafedra gigiyeny truda s klinikoy profzabolevaniy Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - prof. Ye.TS. Andreyeva-Galanina).

(BLOOD VESSELS, physiol.
eff. of local high frequnecy vibrations on tonal state of peripheral vessles (Rus))
(VIBRATIONS, eff.
local high frequnecy vibrations on tonal state of peripheral blood vessels (Rus))

GORBACHEVSKIY, F. F., Candidate Med Sci (diss) -- "On the physiological-hygienic characteristics of high-frequency vibrations". Leningrad, 1959. 16 pp (Min Health RSFSR, Leningrad Sanitary-Hygiene Med Inst), 200 copies (KL, No 25, 1959, 140)

GORBACHEVSKIY, F.F.

Hygienic working conditions in machining large dies with pneumatic tools. Gig.i san. 26 no.1 112-117 Ja '61. (MIRA 14:6)
(VIBRATION--PHYSIOLOGICAL EFFECT)
(PNEUMATIC TOOLS--VIBRATION)

GORBACHEVSKIY, Fedor Fedorovich; SHAGAN, Iosif Bentsionovich; BURLOVA, L.Ya., red.; KHARASH, G.A., tekhn. red.

[Prevention of occupational diseases in the operation of gas-using boiler rooms] Preduprezhdenie professional'nykh zabolevanii pri obsluzhivanii gasifitsirovannykh kotel'nykh. Leningrad, Medgiz, 1962. 57 p. (MIRA 15:7)
(Boilers--Safety measures)

GORBACHEVSKIY, F.F.

Changes in the cardiovascular system under the effect of low frequency and low intensity acoustic stimuli. Trudy LSGMI 75: 150-155 '63. (MIRA 17:4)

1. Kafedra gigiyeny truda s klinikoy professional'nykh zabolevaniy (zav. kafedroy - prof. Ye.TS. Andreyeva-Galanina) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

GORBACHEVSKIY, I.; ZHLOBO, N. (Minsk)

A stall for vending machines. Sov.torg. 33 no.7:48 Jl '60. (MIRA 13:7)
(Vending machines)

KANEVSKIY, Ye.N., inzh.(Dnepropetrovsk); GORBACHEVSKIY, I.I., inzh.(Minsk)

Using electric vibrators for unloading freight cars. Zhel.dor. transp. 41 no.3:77 Mr '59. (MIRA 12:6)
(Vibrators) (Railroads--Freight cars)
(Loading and unloading)

GORBACHEVSKIY, O. S.

On the Superdistance Propagation of Sound in Stretches of Deep Water

Priroda, 1951, 2 Feb, page 54

GORBACHEVSKIY, V.; SHESTAKOV, B.; SAMODOV, G.

Vehicles for transporting long pipes. Avt. traps. 39 no.10:15-17 O '61. (MIRA 14:10)
(Pipe—Transportation)

GORBACHEVSKIY, V. A.

15G49

USSR/Transportation of Timber 4508.0500 Aug 1947

"Automobile and Tractor Lumber-conveyer Sleighs," V. A. Gorbachevskiy, 7 pp

"Les Prom" No 8

Discusses trailers for single-gauge snow- and ice-covered tractor roads, for single-gauge snow- and ice-covered automobile roads, for trackless snow-covered tractor roads, for trackless snow-covered automobile roads, and manufacture and use of automobile and tractor lumber-conveyer sleighs. Seven detailed diagrams of tractor and automobile single- and double-runner sleighs.

LC

15G49

GORBACHEVSKIY, V. A. (ENGR)

GORBACHEVSKIY, V. A. (ENGR) -- "INVESTIGATION OF THE OPERATION OF MOTOR VEHICLE TIMBER-TRANSPORT TRAILER UNREELINGS." SUB 3 MAR 52, MOSCOW FORESTRY ENGINEERING INST (DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCES)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

1. GORBACHEVSKIY, V.A.

2. USSR (600)

4. Steam Boilers

7. New steam equipment to heat engines before starting. Les.prom. 12 no.10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

GORBACHEVSKIY, V.A., kandidat tekhnicheskikh nauk.

Selecting practical parameters for lumber trailer-trucks. Mekh. trud. rab. 7 no.11:12-14 D '53. (MLRA 6:12)
(Motor-trucks) (Lumber--Transportation)

GORBACHEVSKIY, V.A.

KIRYUKHIN, Anatoliy Mikhaylovich; GORBACHEVSKIY, Viktor Andreyevich; LESHKEVICH, Andrey Ivanovich; MIKHAYLOVSKIY, Yuriy Vsevolodovich; GATSKEVICH, A.I., redaktor; VOROB'YEVA, N.N., redaktor; KARASIK, N.P., tekhnicheskiy redaktor

[Operation of hauling equipment] Ekspluatatsiia tiagovykh mashin. Moskva, Goslesbumizdat, 1954. 391 p. (MLRA 8:4)
(Lumbering--Equipment and supplies)

YESIPCHUK, P.P.; GORBACHEVSKIY, V.A.; BALOBANOV, A.S., red.; OSOKINA, A.M., red. izd-va; KARASIK, N.P., tekhn. red.; VOLKHOVER, R.S., tekhn. red.

[L-47 single drum winch for the S-80 tractor; "Forestry and Lumber" pavilion] Odnobarabannaia lebedka L-47 dlia traktora S-80; Pavil'on lesnaia promyshlennost' lesnoe khoziaistvo. [Moskva] M-vo lesnoi promyshl. SSSR [1956] 6 p. (MIRA 11:10)

1. Moscow. Vsesoyuznaya promyshlennaya vystavka. (Winches)

GORBACHEVSKIY, V.A.; UVAROV, N.V.; SHCHETININ, I.P., red.; MERZHANOVA, O.M., red. izd-va; KARASIK, N.P., tekhn. red.; VOLKHOVER, P.S., tekhn. red.

[MAZ-501 log truck] Lesovoznyi avtomobil' MAZ-501. Moskva, M-vo lesnoi promyshl. SSSR, 1956. 9 p. (MIRA 11:10)
(Lumber—Transportation)
(Motortrucks)

SOV/124-57-5-5244

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 20 (USSR)

AUTHOR: Gorbachevskiy, V. A.

TITLE: The Kinematic Motion of an Automobile Equipped With a Pole Trailer in Plane Curves (Kinematika dvizheniya avtomobilya s rospuskom po krivym v plane)

PERIODICAL: Tr. Tsentr. n.-i. in-ta mekhaniz. i energ. les. prom-sti, 1956, Vol 3, pp 3-29

ABSTRACT: The paper analyzes the kinematic problem of the accuracy of the tracking of automobile trailers (with straight and cross coupling) behind the tractor vehicle on a curve with a load of a considerable length.

K. S. Kolesnikov

Card 1/1

GORBACHEVSKIY, V.A., kand.tekhn.nauk

Developing truck-hauling of logs. Mekh.trud.rab.11 no.6:20-25 Je '57.
(MIRA 10:11)
(Lumber--Transportation)

GORBACHEVSKIY, V., kandidat tekhnicheskikh nauk.

Preliminary packet loading of lengthy freight items. Avt.transp.35 no.1:10-13 Ja '57. (MIRA 10:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i energetiki. (Loading and unloading)

GORBACHEVSKIY, V., kand.tekhn.nauk; METALLIKOV, S., kand.tekhn.nauk

Using the MAZ trucks to transport timber on icy roads. Avt.transp. 35 no.2:20-22 F '57. (MIRA 10:12)
(Motortrucks--Cold weather operation)

GORBACHEVSKIY, V.A., kandidat tekhnicheskikh nauk.

Operating properties of the MAZ-501 motortruck. Avt.transp. 35 no.4:24-26 Ap '57. (MLRA 10:5)

(Motortrucks)

SUDNITSYN, Ivan Ivanovich; ORESHKIN, Sergey Ivanovich; ROGOZKIN, Aleksandr Vladimirovich; OSIPOV, Aleksandr Ivanovich; GORBACHEVSKIY, Viktor Andreyevich; ZAV'YALOV, Mikhail Aleksandrovich; GATSKEVICH, Vladimir Antonovich; PATSIORA, Pavel Pavlovich; SOLOV'YEV, N.S., red.; POLTEVA, B.Kh., red.izd-va; PARAKHINA, N.L., tekhn.red.

[Problems of mechanizing lumbering] Problemy mekhanizatsii lesozagotovok. Moskva, Goslesbumizdat, 1960. 194 p. (MIRA 14:6)

(Lumbering—Machinery)

GORBACHEVSKIY, Viktor Andreyevich; LESHKEVICH, Andrey Ivanovich; MIKHAYLOVSKIY, Yuriy Vsevolodovich; SHESTAKOV, Boris Aleksandrovich; MEDNIKOV, I.N., retsenzent; MOROZOV, K.P., retsenzent; KHASMAN, P.Ya., otv. red.; PLESKO, Ye.P., red.; GRECHISHCHEVA, Z.I., tekhn. red.

[Fundamentals of lumbering and the operation of machines and mechanisms] Osnovy lesozagotovok i ekspluatatsiia mashin i mekhanizmov. V.A.Gorbachevskii i dr. Moskva, Goslesbumizdat, 1961. 319 p. (MIRA 15:2)
(Lumbering--Machinery)

GORBACHEVSKIY, Viktor Andreyevich; GAL'PERIN, Zinoviy Samoylovich Gal'perin; KLYCHKOV, Pavel Dmitriyevich; LAKH, Yevgeniy Ivanovich; LEKSAU, Igor' Nikolayevich; PRASOLOV, Boris Aleksandrovich; RYZHKOV, Aleksey Nikolayevich; SUKHARNIKOV, Iosip Osipovich; SHESTAKOV, Boris Aleksandrovich; ALPATSKIY, I.V., red.; PLESKO, Ye.P., red.izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Utilization of logging truck transportation] Ekspluatatsiia lesovoznogo avtomobil'nogo transporta. [By] V.A. Gorbachevskii i dr. Moskva, Goslesbumizdat, 1962. 296 p. (MIRA 16:5)

(Lumber--Transportation) (Tractor trains)

GAL'PERIN, Z.S.; KLYCHKOV, P.D.; LAKH, Ye.I.; GORBACHEVSKIY, V.A.; DARAGAN, L.D.; RYZHKOV, A.N.; SUKHARNIKOV, I.O.; TURASS, A.L.; GATSKEVICH, V.A., red.

[Manual on automotive transportation of lumber] Spravochnik po lesovoznomu avtomobil'nomu transportu. Moskva, Lesnaia promyshlennost', 1965. 446 p. (MIRA 19:1)

1. Khimki. TSentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i energetiki lesnoy promyshlennosti.

GORBACHEVSKIY, V.V., inzh.

Operation and repair of the Sh-50 mill. Energ. i elektrotekh. prom. no.1:52-53 Ja-Mr '65. (MIRA 18:5)

TSEYTLIN, M.A., inzh.; GORBACHEVSKIY, V.V., inzh.

Installation of pins and gunite lining in furnace screens of boilers with liquid slag removal. Energ. i elektrotekh. prom. no.3:57-58 Jl-S '65. (MIRA 18:9)

Gorbachevskiy, Ye. V.

5(2);25(1) PHASE I BOOK EXPLOITATION SOV/2313

Akademiya nauk SSSR. Institut mashinovedeniya

Povysheniye stoykosti detaley mashin /sul'fidirovaniye/; sbornik statey (Increasing the Wear Resistance of Machine Parts /Sulfurization/; Collection of Articles) Moscow, Mashgiz, 1959. 126 p. Errata slip inserted. 4,500 copies printed.

Ed. (Title page): M. M. Khrushchov, Doctor of Technical Sciences; Ed. (Inside book): A.G. Nikitin, Engineer; Tech. Ed.: V.D. El'kind; Managing Ed. for Literature on General Technical and Transport Machine Building (Mashgiz): K.A. Ponomareva, Engineer.

PURPOSE: This collection of articles is intended for engineering and technical workers of machine-building and overhauling plants.

COVERAGE: This book presents results of investigations of methods to increase the resistance of machine parts to seizure. A new method of sulfurization which improves the friction behavior of cast iron and steel and an analysis of the effect of sulfurization on the antifriction properties and wear of metal are given.

Card 1/6

These articles are the transactions of a seminar held at the Institute of Mechanical Engineering of the Academy of Sciences, USSR, in December 1956.

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temperatures of operation.

AVAILABLE: Library of Congress

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10-20-59

ACCESSION NR: AR4018314 S/0137/64/000/001/G036/G036

SOURCE: RZh. Metallurgiya, Abs. 1G251

AUTHOR: Somin, B. Kh.; Gorbachevskiy, Ye. V.; Latsh, V. V.; Minayev, N. G.

TITLE: The influence of nickel on the sinterability of pressed powders of tungsten and molybdenum

CITED SOURCE: Tr. Kuyby*shevsk. aviats. in-t, vy*p. 16, 1963, 141-148

TOPIC TAGS: powder metallurgy, nickel, tungsten, molybdenum, material strength, heat-treatment

TRANSLATION: Research was conducted on the influence of Ni on sintering in an atmosphere of H_2 and in vacuum Mo and W in a range of 1,100-2,000 degrees for Mo and 1,100-2,500 for W, with a nickel content of 0.01-10% by weight. Density (P), microstructure, microhardness, and the parameters of the crystal network of the first phase were studied. An increase in the density of the sintered Mo with an inclusion of 0.5-1% Ni takes place as low as 1,100 degrees. At 1,300 degrees, the porosity of the samples with the above nickel content amounts to 10%. At 1,500 degrees, the effectiveness of the influence of small inclusions of Nickel on the sinterability

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ACCESSION NR: AR4018314

of Mo decreases considerably. The curves of function P of sintered W with the nickel content has a maximum equal to a 0.25% nickel content. After sintering at 1,500 degrees, the W with an admixture of 0.25-0.5% nickel amounts to 5-7%. The inclusion of nickel also leads to an increase in the microhardness of W from 250 to 600 kg/sq cm, and the microhardness of Mo from 150 to 500 kg/sq cm. The liquifiability of nickel at 1,500 degrees is 0.3 atmospheric % in W and 1 atmospheric % in Mo. At sintering temperatures of 1,350 degrees for Mo, and 1,495 degrees for W, and a nickel content greater than 0.5% for Mo and 0.25% for W, an oozing out of the Nickel phase is observed, accompanied by a decrease in hardness of the samples during sintering in H_2.

SUB CODE: MM ENCL: 00

Card 2/2

GORBACHIK, T. N.

"Foraminifers of the Lower Cretaceous Deposits of the Central Ciscaucasis and the Southwestern Crimea." Moscow Order of Lenin State U imeni M. V. Lomonosov, Moscow, 1955. (Dissertation for the Degree of Candidate of Geological and Mineralogical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

GORBACHIK, T.N.

New foraminifer species from lower Cretaceous deposits of the Crimea and northwestern Caucasus. Paleont. zhur. no.1:78-83 '59. (MIRA 13:1)

1.Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Crimea--Foraminifera, Fossil) (Pshekhi Valley--Foraminifera, Fossil)

DRUSHCHITS, V.V., GORBACHIK, T.N.

Albian deposits in the eastern Crimea. Vest. Mosk. un Ser. biol., pochv., geol., geog. 14 no.3:117-122 '59.
(MIRA13:6)

1. Kafedra paleontologii Moskovskogo universiteta.
(Crimea--Geology, Stratigraphic)

GORBACHIK, T.N.

Some plankton Early Cretaceous foraminifers in the Crimea.
Biul. MOIP Otd. geol. 37 no.6:130 N-D '62.
(MIRA 16:8)

GORBACHIK, T.N.

Variation and microstructure of the mural in the shell of Globigerinelloides algeriana. Paleont. zhur. no.4:32-37 '64. (MIRA 18:3)

1. Moskovskiy gosudarstvennyy universitet.

SALMANOVA, L.S.; GORBACHKOVA, Ye.A.; NUZHDINA, T.N.

Methods for determining the activity of cytolytic enzymes.
Trudy TSentr.nauch.-issl.inst.piv.,bezalk. i vin.prom. no.9:
53-62 '62. (MIRA 16:10)

SALMANOVA, L.S.; GORBACHKOVA, Ye.A.

Carbohydrate composition of hydrolysates obtained as the result of the action of cytolytic fungi cultures on various substrates. Trudy [redacted]ch.-issl.inst.piv.,bezalk. i vin.prom. no.9: 62-69 '62. (MIRA 16:10)

GOMBACHOV, A.I., insh.

Standardizing tower crane joints. Biul. tekh. inform. 4 no.4:24-25 Ap '58. (MIRA 11:5)

(Cranes, derricks, etc.)

GORBACHOV, D. [Horbachov, D.], iskusstvoved

Paintbrush that creates the world. Znan. ta pratsia no.1:22-23 Ja '63.
(MIRA 16:3)
(Painting)

GORBACHOV, F.A. AND MELKOBROD, YE.A.

Physical Principles of Devices and Operation of Aircraft Instruments. Defense Publ. House (1953) p. 427

USSR/General Biology. Individual Development. Embryonic Development. B-4

Abs Jour : Ref Zhur-Biol., No 16, 1958, 71597

Author : Gorbachova, A. P., Popekhina, P. S.
Inst : -
Title : Age Determined Changes in Amino Acid Contents in Pig Embryos.

Orig Pub : Ukr. biokhim. zh., 1957, 29, No 1, 96-100

Abstract : The content of water decreases and the quantity of mineral substances increases in proportion to the growth of pig embryos. The content of proteins in the first 40 days of development increases somewhat and then decreases sharply. Throughout embryogenesis, the ratio of different amino acids also changes. The

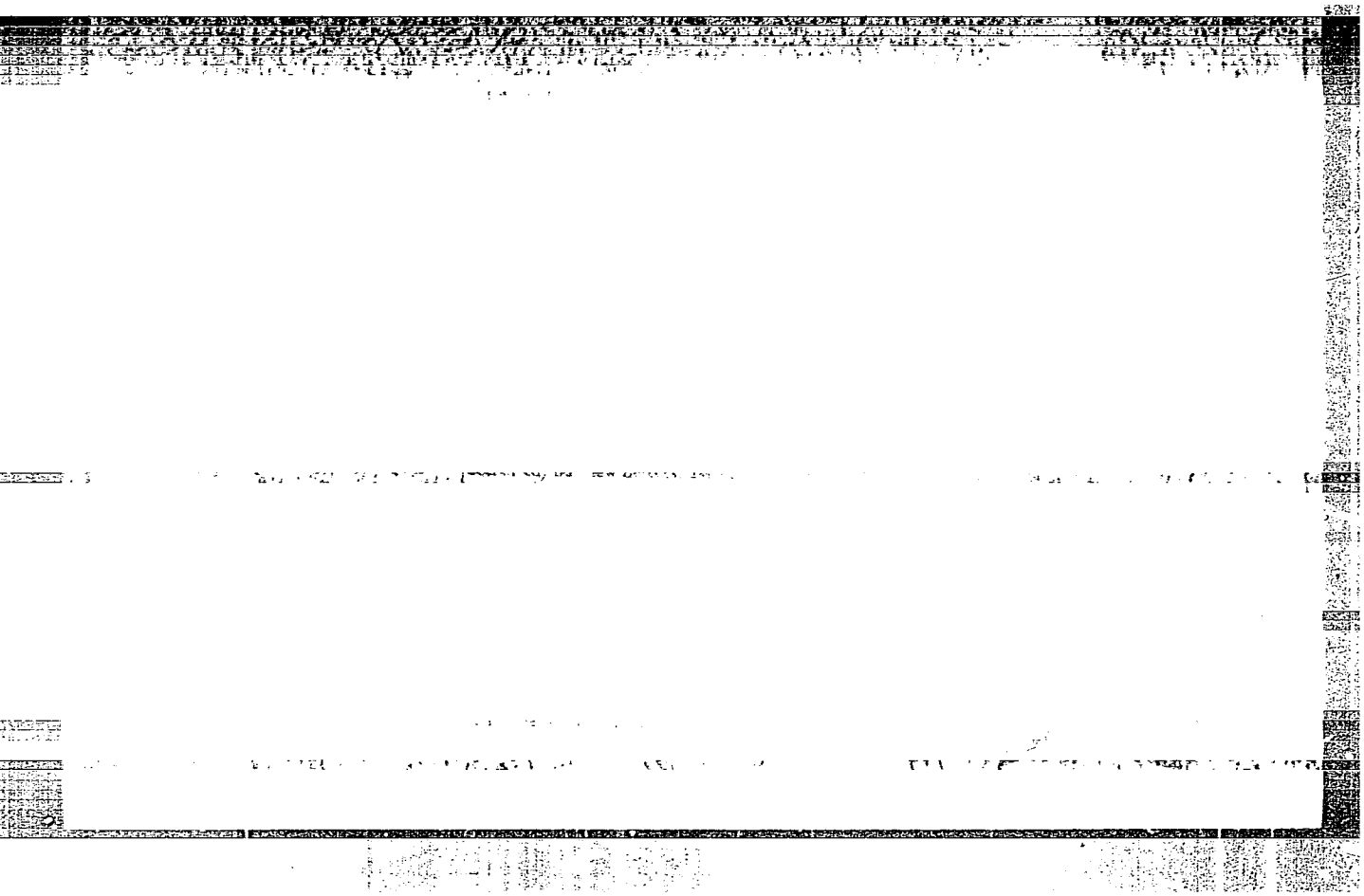
Card : 1/2

USSR

The throwing power of electrolytes for the electrochemical finishing of cutting tools. [illegible]

VOSDVIZHENSKIY, G.S.; VALEYEV, A.Sh.; GORBACHUK, G.A.

Dispersibility of electrolytes during the electrochemical processing of cutting tools. Zhur.prikl.khim. 26 no.10:1094-1096 O '53. (MLRA 6:10)
(Electrolytes) (Cutting machines) (Metals--Finishing)



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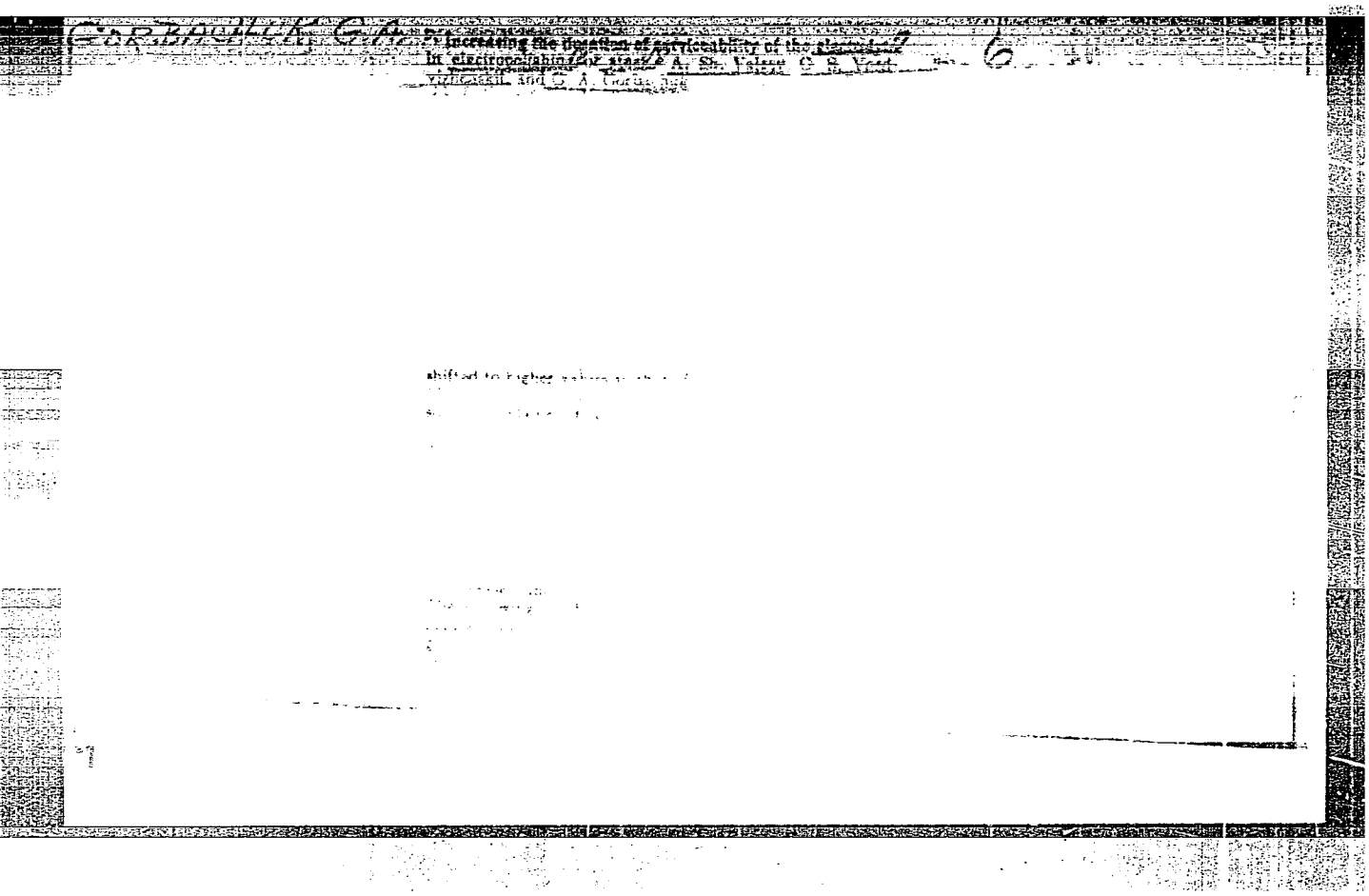

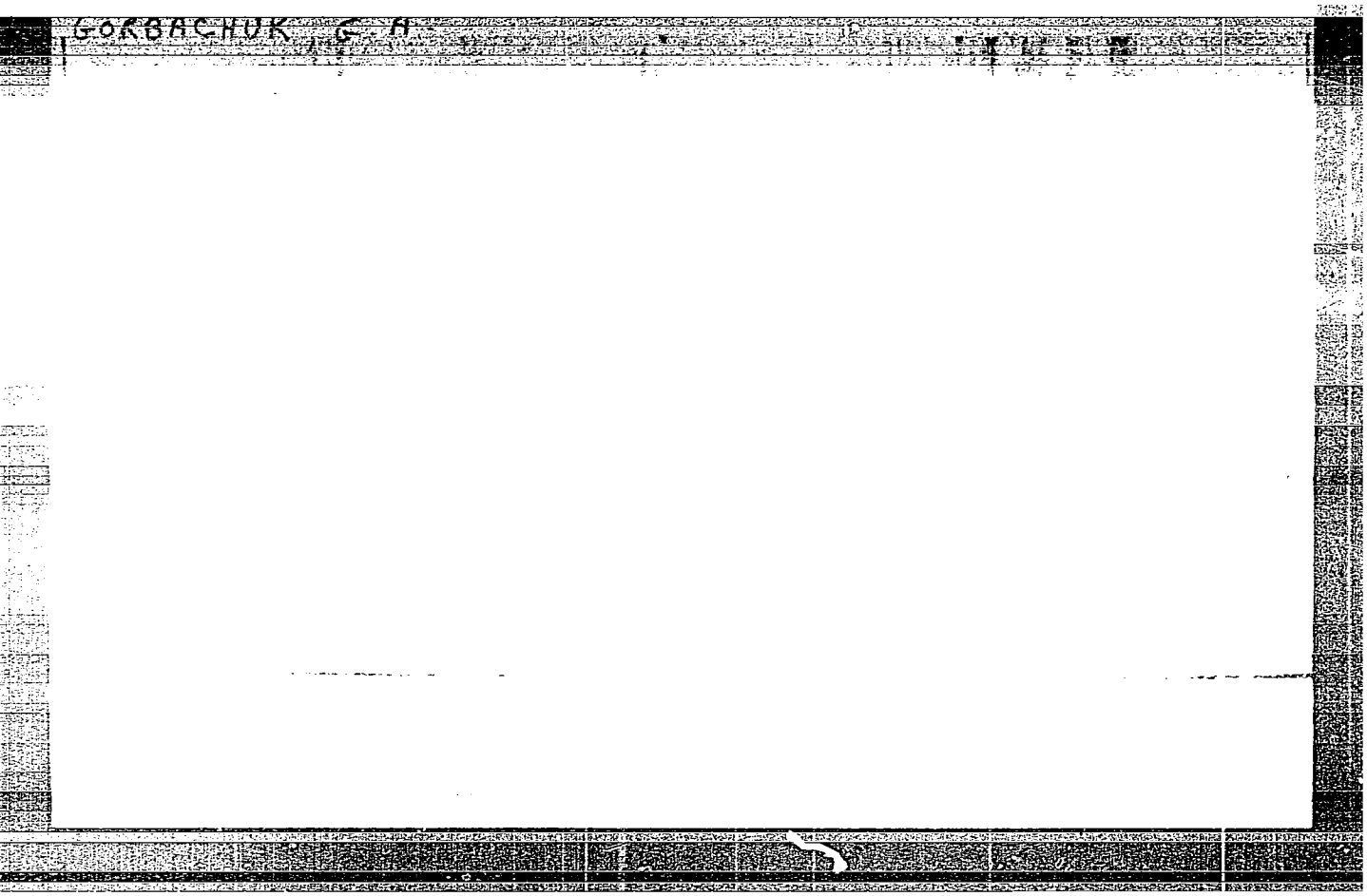

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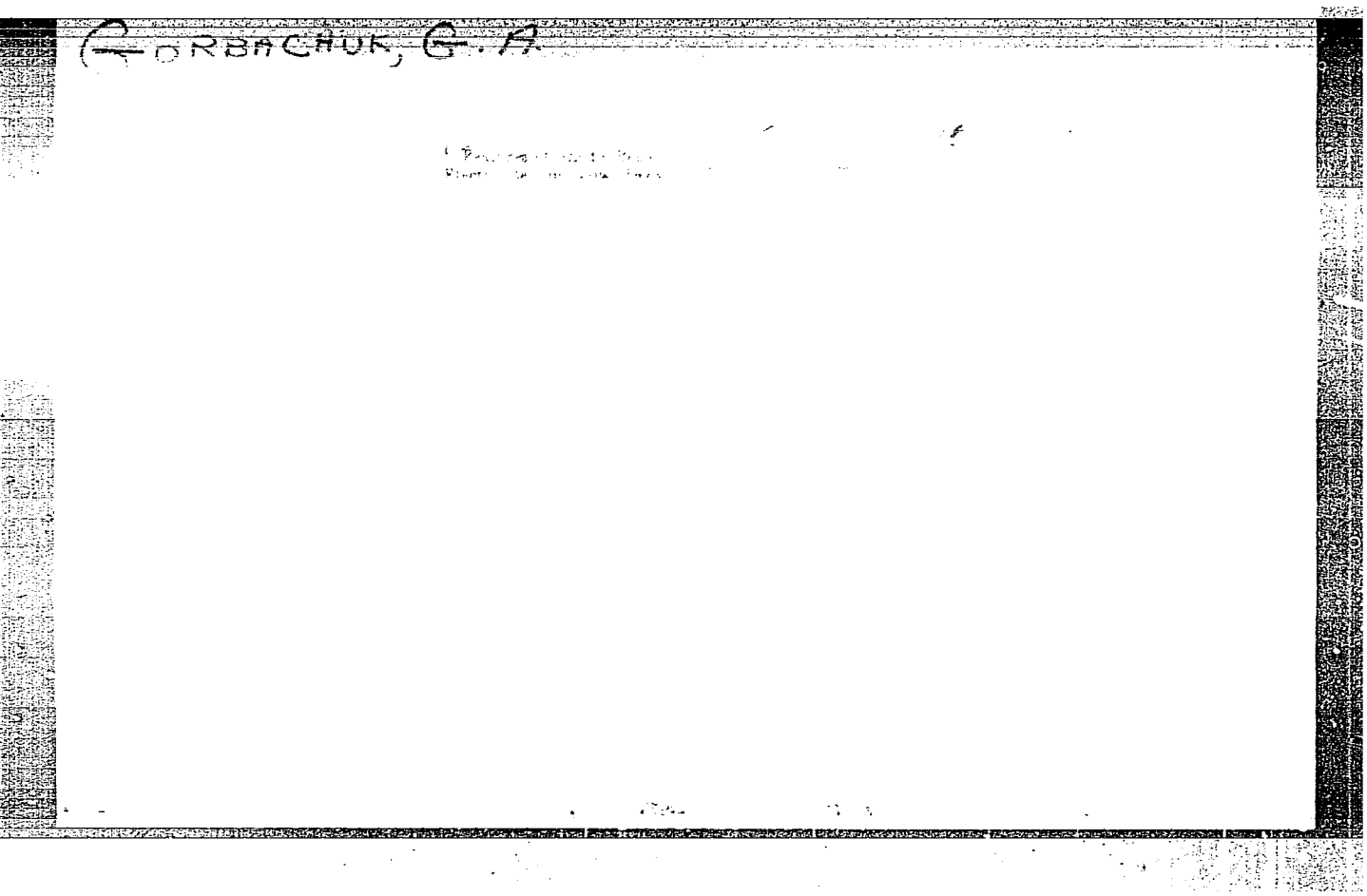

GORBACHUK, G.A.

137-58-5-10249

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 5, p 194 (USSR)

AUTHORS: Vozdvizhenskiy, G.S., Valeyev, A.Sh., Gorbachuk, G.A.

TITLE: On the Mechanism of the Dissolution of Steel Upon Anodic Polarization by Low-density Currents (K voprosu o mekhanizme rastvoreniya stali pri anodnoy polyarizatsii tokami maloy plotnosti)

PERIODICAL: Izv. Kazansk. fil. AN SSSR. Ser. khim. n., 1957, Nr 3, pp 63-67

ABSTRACT: Results are presented of a study of the mechanism of the dissolution of steel upon anodic polarization by low-density currents in order to clarify the phenomenon of destruction of the specimen in depth without visible destruction of its surface caused by an electropolishing bath. The current efficiency (B_{eff}) was determined by the weight loss due to anodic dissolution and spontaneous dissolution. An increase in the density of the polarizing current, all other conditions being equal, should increase the concentration of Fe salts in the anode area of the bath and reduce the concentration of oxidizer. When the temperature is reduced from 80 to 60°C, the rate of diffusion of the

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On the Mechanism of the (cont.)

oxidizer declines and attains its steady-state value at the very start of the process. When the densities of the polarizing current at the onset of the process are very low, B_{eff} is $<100\%$, as it is at higher densities and under conditions of long-continued polarization. This indicates the presence not only of anodic dissolution but of some other process at the anode, possibly oxidation of trivalent Cr^{3+} ions to Cr^{6+}. The resultant data confirm the author's earlier concepts on the mechanism of breakdown of metals in electropolishing electrolytes.

Ya. L.

1. Steel--Disintegration 2. Anodes--Polarization

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GORBACHUK, G.A.

137-58-5-10251

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 194 (USSR)

AUTHORS: Valeyev, A.Sh., Gorbachuk, G.A.

TITLE: Chemical Processes Accompanying the Dissolution of Steel in Anodic Polarization by Low-density Currents (Khimicheskiye protsessy, soprovozhdayushchiye rastvoreniye stali pri anodnoy polyarizatsii tokami maloy plotnosti)

PERIODICAL: Izv. Kazansk. fil. AN SSSR. Ser. khim. n., 1957, Nr 3, pp 69-74

ABSTRACT: The results of an analytical study of the causes of the dissolution of Fe on anodic polarization by low-density currents in electropolishing bath containing Cr acid are presented. The process of dissolution proceeds with reverse precipitation of highly disperse Fe as a loose friable mass. The processes of dissolution and reverse liberation proceed in the depth of the metal, virtually without affecting its surface layer. A study was made of the applicability of the equation $Cr_2O_7 + 6Fe^{2+} + 14H^+ \rightarrow Fe^{3+} + 2Cr^{3+} + 7H_2O$ for the calculation of the consumption of the Cr_2O_7 inhibitor. It is shown that an anomaly in the redox process of conversion of the Cr compounds was observed. The

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Chemical Processes Accompanying (cont.)

usual process of reduction $Cr^{6+} \rightarrow Cr^{3+}$ is not confirmed by the analytical data. This anomaly obviously pertains to the process of reduction of Cr on cathode segments of the microcells of the polarizing electrode.

Ya.L.

1. Steel--Disintergration 2. Anodes--Polarization

SOV / 2o-12o-1-26/63

AUTHORS: Vozdvizhenskiy, G. S., Gorbachuk, G. A., Dezider'yev, G. P.

TITLE: On the Problem of the Mechanism of the Electrolytic Polishing of Metals and of the Structure of the Polished Surface (K voprosu o mekhanizme elektroliticheskoy polirovki metallov i strukture elektropolirovannoy poverkhnosti)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 12o, Nr 1, pp.1o1-1o2 (USSR)

ABSTRACT: The problem of the mechanism of the electrolytic polishing is directly connected with the problem of the structure of an electrically polished surface. The electromicroscopic investigation of such an electrically polished surface carried out by the authors (Ref 2) showed that the conception of 2 different stages of electro-polishing and especially the conception of the suppression of the structural blanching in the second stage are not at all beyond any doubts. The present paper gives some results of these investigations. Electrically polished samples of polycrystalline copper were investigated. This electric polishing took place in an 5-M-

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On the Problem of the Mechanism of the Electrolytic Polishing of Metals and of the Structure of the Polished Surface

-solution of phosphoric acid. Colloidal replica were taken of the samples which had been electrically polished for different periods (10, 25 and 180 seconds) and then they were investigated by means of the electron-microscope. According to these microphotographs in the first stage of electro--polishing (100 seconds) an active structural blanching takes place. The result of this blanching highly depends on the degree of the electrochemical inhomogeneity of the surface. A prolongation of the duration of electro-polishing leads to a further change of the character of structural blanching. A further increase of the duration of the electro-polishing to 180 seconds (i.e. the transition to that stage which is regarded the decisive stage of the process) does not bring about any important qualitative changes for the picture of structural blanching. The enclosed microphotographs do not tend to show in any way a suppression of the structural blanching during the total duration of the process. The mentioned data agree with those of other authors (Ref 4). There are 4 figures. and 17 references, 8 of which are Soviet.

SOV/ 2o-12o-1-26/63

On the Problem of the Mechanism of the Electrolytic Polishing of Metals and of the Structure of the Polished Surface

ASSOCIATION: Khimicheskiy institut Kazanskogo filiala Akademii nauk SSSR (Chemical Institute of the Kazan' Branch, AS USSR)

PRESENTED: January 2, 1958, by A. N. Frumkin, Member, Academy of Sciences, USSR

SUBMITTED: November 18, 1957

1. Metals--Surface properties 2. Electrolytic polishing--Analysis 3. Surfaces--Structural analysis 4. Electron microscopes--Applications

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31548
S/081/61/000/022/011/076
B102/B108

5.4700

AUTHORS: Valeyev, A. Sh., Gorbachuk, G. A.

TITLE: Processes occurring in the range of the first rize of the polarization curve for anodic dissolution of steel in electropolishing electrolyte

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 66, abstract 22B469 (Izv. Kazansk. fil. AN SSSR. Ser. khim. n., no. 5, 1959, 61-69)

TEXT: The mechanism of anodic dissolution of a metal in an electropolishing electrolyte is studied. The measured polarization curves (PC) for carbon steel 50 and an electrolyte consisting of 70% H_3PO_4 + 14% CrO_3 + 16% H_2O, at 80°C are presented, as well as photomicrographs of the specimens treated under conditions corresponding to different points of the PC. The PC showed two sections of current rise and a range of a limiting current. The cause of the dull etching of the specimens in the range of the first current rise is investigated. It is assumed that under these conditions the passivating film is incomplete which leads to

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Processes occurring in the range ...

microcell operation, causing separation of a loose Fe layer in the cathode region. At $i < 0.7$ a/dm^2, the Fe layer is formed under a thin metal film (RZhKhim, 1956, No. 23, 75605), at $i > 0.7$ a/dm^2 the number of active region increases, and the highly disperse Fe is deposited on the whole surface of the specimen. It is pointed out that redox reactions in the electrode-near regions, e.g. interaction between Fe^{2+} and $Cr_2O_7^{2-}$ have to be taken into account. In the authors' opinion the proposed etching mechanism verifies their own data on the dependences of the effective metal yield with respect to current and losses in weight of the specimens owing to anodic dissolution and self-dissolution on the composition of the electrolyte, on the magnitude of i, and on the duration of the polarization. [Abstracter's note: Complete translation.]

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S/020/60/133/04/25/031
B004/B056

AUTHORS: Vozdvizhenskiy, G. S., Gorbachuk, G. A., Dezider'yev, G. P.

TITLE: The Mechanism of the Electrolytic Polishing of Metals in the Light of Electron-microscopic Studies of the Surface During the Various Stages of Treatment

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 4, pp. 869 - 871

TEXT: In an earlier paper (Ref. 4), the authors proved that in the anodic dissolution of metals a structural etching of the surface always occurs. In the present paper, the connection between anodic dissolution and metal structure was investigated. Cold-rolled copper sheets of the type M1 (M1) and cold-rolled brass sheets of the type L59 (L59) were used as samples. Electrolytic polishing was carried out in 11.35 M orthophosphoric acid at a current density of 14.5 ma/cm^2 for copper and 19 ma/cm^2 for brass. The samples were first etched until a distinct microstructure became visible (copper with ammoniumpersulfate, brass with an aqueous solution of ammonia and hydrogen peroxide). After electrolytic polishing

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The Mechanism of the Electrolytic Polishing of Metals in the Light of Electron-microscopic Studies of the Surface During the Various Stages of Treatment

S/020/60/133/04/25/031
B004/B056

of different periods of time, the surfaces were examined metallegraphically (200-fold magnification) and under an electron microscope (23,000-fold magnification) (Figs. 1, 2). The same experiments were carried out with copper and brass sheets annealed in vacuo (Figs. 3, 4). It follows from Figs. 1, 2 that in electrolytic polishing the surface structure orientated by rolling becomes clearly visible. By annealing, this structural orientation is again lost. A so-called suppression of structural etching does, however, not occur. Only the extent of anodic dissolution changes in accordance with the change in electrochemical inhomogeneity. Here, diffusion processes play an important part in that the differences in the metal relief caused by etching are gradually equalized. There are 4 figures and 4 references: 3 Soviet, 1 American, 1 Canadian, and 1 German.

ASSOCIATION: Khimicheskiy institut Kazanskogo filiala Akademii nauk SSSR (Chemical Institute of the Kazan' Branch of the Academy of Sciences USSR)

PRESENTED: January 28, 1960 by A. N. Frumkin, Academician
SUBMITTED: January 28, 1960

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S/137/62/000/006/138/163
A057/A101

AUTHORS: Vozdvizhenskiy, G. S., Gorbachuk, G. A., Dezider'yev, G. P.

TITLE: Electron-microscopic investigation of the process of anodic decrystallization of a metal

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 90 - 91, abstract 6I574 (V sb. "Rost kristallov, T. Z.", Moscow, AN SSSR, 1961, 192 - 199. Discus., 214 - 218)

TEXT: The process of anodic dissolving of rolled and annealed Cu was studied in 5% H_3PO_4 solution. The Cu-samples were etched in 10% ammonium persulfate solution, then inserted into the electrolytic bath, separated and studied metallographically and electron-microscopically. The initial surface of such samples is electrochemically non-uniform, thus after chemical etching a crystallographic structure is revealed. The anodic dissolving of the sample occurs under participation of an acceptor, which is included in the composition of the electrolyte. Microphotographs showed that the outer effect of etching in ammonium persulfate upon the rolled material corresponds to the orientation of

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A057/A101

crystals in the direction of rolling; this is even more pronounced in electrochemical treatment. The electron-microscopic pictures reveal numerous oriented shifts inside the crystals. The annealed material shows the same picture of chemical and electrochemical dissolving as the rolled material. Since the annealed material contains considerably larger crystallites than the rolled material, the effect of chemical and electrochemical dissolving is manifested at smaller enlargements. Annealing effects desorientation of crystallites, thus the treated elements of surface do not show an orientation either on optical, or on electron-microscopical photographs. As a result of anodic dissolving of metals, the picture of the formation and growth of crystallites is clearly developed, which is a proof of the community of the electrodecrystallization mechanism at anodic dissolving of metals. There are 6 references.

Ye. Layner

[Abstracter's note: Complete translation]

DEZIDER'YEV, G.P.; BEREZINA, S.I.; GORBACHUK, G.A.

Formation of an oxide layer in the course of the electrolytic polishing of copper. Izv.Kazan.fil. AN SSSR. Ser.khim.nauk no.6:155-162 '61. (MIRA 16:5)
(Copper--Finishing) (Electrolytic polishing) (Metallic oxides)

VOZDVIZHENSKIY, G.S.; GORBACHUK, G.A.; DEZIDER'YEV, G.P.

Mechanism of the electrolytic polishing of metals and the structure of the polished surface according to electron microscopy data. Izv.Kazan.fil. AN SSSR. Ser.khim.nauk no.6:129-143 '61. (MIRA 16:5)
(Electrolytic polishing) (Electron microscopy)

GORBACHUK, G.A.; SOZIN, Yu.I.

Electron diffraction study of oxides formed in the anodic solution of copper during electrolytic polishing. Izv.Kazan.fil. AN SSSR. Ser.khim.nauk no.6:248-253 '61. (MIRA 16:5)
(Electrodes, Copper) (Electrolytic polishing)
(Electron diffraction examination)

28286
S/076/61/035/010/001/015
B101/B110

1.1900 also 1087 1160

AUTHORS: Vozdvizhenskiy, G. S., Gorbachuk, G. A., and Dezider'yev, G. P. (Kazan')

TITLE: Mechanism of electrolytic polishing of metals, and structure of electropolished surface as revealed by electron microscopic analyses

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 10, 1961, 2190-2198

TEXT: The present article presents results obtained from microscopic (200-fold magnification) and electron microscopic (23,000-fold magnification) analyses of the course of electrolytic polishing of M1 (M1) copper sheet and Л59 (L59) brass sheet. The purpose of the study was to clarify the dependence of the process on the metal structure, and the role played by diffusion. The specimens were first etched until they displayed a distinct microstructure (Cu in 10% ammonium persulfate solution, 4 min at 20°C; brass in a mixture of 25% NH_3 and 3% H_2O_2, 2-3 min at 20°C). The next step was electrolytic polishing; (a) Cu in 11.35 M H_3PO_4 which

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Mechanism of electrolytic ...

contained 4.8 g/liter of Cu, at 14.5 ma/cm^2; (b) brass in 11.35 M H_3PO_4 which contained 2.9 g/liter of Cu, at 19 ma/cm^2. These optimum concentrations led to reproducible results. The reflection factor of the polished sheet was determined by putting the reflection coefficient of a silver mirror = 100%. The reflection factor was found to attain a high value, as soon as the anode potential was stable. Replicas of specimens polished between 3 and 100 min were examined in an ЭМ-3 (EM-3) electron microscope. A second set of experiments was performed with annealed specimens made of the same metals. Cu was annealed for 1.5 hr at 700°C, and brass for 2 hr at 600°C. The specimens were polished in an electrolyte with a concentration like that of the 1st set. The current density, however, was 21 ma/cm^2 for Cu, and 16 ma/cm^2 for brass. The annealed specimens displayed an inhomogeneous surface with disoriented crystallites. In them, reflection factor and anode potential had lower values than in non-annealed metal. The processes observed are explained by deep etching figures being formed at first (after 3-5 min). Penetration into their depths is however, soon inhibited, and the respective are passivated. The crystals are then dissolved breadthwise. Electron microscopic analyses showed that the original texture of rolled (oriented) and annealed (disoriented) metal

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Mechanism of electrolytic ...

remained unchanged in this connection. The surface is smoothed by a decrystallization process (decomposition of crystallites). The anode passivation is a consequence, not the cause, of this process by which the electrochemical inhomogeneity is balanced. A paper by S. I. Krichmar (Dokl. AN SSSR, 122, 424, 1958) is mentioned. There are 4 figures, 4 tables, and 20 references: 15 Soviet and 5 non-Soviet. The two most important references to English-language publications read as follows: G. Lucien, J. Andre, J. Phys. Chem., 57, 701, 1953; J. Edwards, J. Electrochem. Soc., 100, 189, 1953.

ASSOCIATION: Kazanskiy filial AN SSSR, Khimicheskiy institut (Kazan' Branch of the AS USSR, Chemical Institute)

SUBMITTED: August 8, 1960

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